

REMARKS

Claim Rejections

35 U.S.C. 112

Claims 18-21, 23-24, and 27-31

Claims 18-21, 23-24, and 27-31 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Final Office Action states that the claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Final Office Action states that there is no embodiment described in the originally filed application that includes a perforation to allow the first contact to be house within the phosphor loaded cap that also includes a conversion material lens, and also that none of the embodiments including a conversion material lens also comprise a phosphor loaded cap with a perforation.

Applicants respectfully disagree with this rejection, but to expedite allowance of the claims, Applicants are amending claims 18, 19, 23, 27, 30, and 31 as shown above. Specifically, the term "conversion material lens" is being changed to "conversion material region" in claims 18, 19, 23, 27, 30, and 31. The amendments to claims 18, 19, 23, 27, 30, and 31 are supported by the originally filed specification in, for example, paragraphs 0010, 0061, 0062,

0063, 0064, originally filed claims 18, 19, 23, 27, 30, and 31, and Figures 13, 14, 15, and 16 and associated text. Claims 20-21, 24, and 28-29 depend directly or indirectly on claim 18.

Therefore, claims 18-21, 23-24, and 27-31 comply with the written description requirement and are each allowable. The withdrawal of the rejections to claims 18-21, 23-24, and 27-31 is respectfully requested.

35 USC 102

Claims 1-2, 5-17, 32-39, and 44-48

Claims 1-2, 5-17, 32-39, and 44-48 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pub. US2001/0000622 to Reeh et al. ("Reeh"). Claims 1, 32, and 44 are independent claims. Claims 2 and 5-17 depend directly or indirectly on claim 1. Claims 33-39 depend directly or indirectly on claim 32. Claims 45-48 depend directly or indirectly on claim 44. The following arguments will focus on the independent claims.

Applicants respectfully disagree with this rejection, but to expedite allowance of the claims, Applicants amend independent claim 1 herein to recite: a hemispheric conversion material region formed separately from said light source and including conversion particles distributed uniformly throughout said hemispheric conversion material region, said conversion material region positioned in proximity to said light source such that at least some of said light source light passes through said conversion material region, said conversion material region shaped

such that said light passing through travels through substantially similar thicknesses of said conversion material region, said conversion particles absorbing at least some of said light source light passing through said conversion material region and emitting a second spectrum of light. The claim 1 amendment is supported in the filed specification in, for example, paragraphs 0039, 0044, Figures 1-12 and associated text. Reeh does not disclose these features within its four corners.

Reeh discloses varying the color temperature or color locus of the white light by a suitable choice of the luminescent material, its particle size, and its concentration (Reeh: paragraph 0025). However, Reeh does not provide further details on the concentration of his luminescent material and does not disclose the uniform distribution of conversion particles in any of his apparatus elements. The Examiner is respectfully requested by the Applicants to identify the specific language in Reeh that discusses the uniform distribution of conversion particles. Accordingly, Reeh does not disclose and does not teach the claim 1 limitations of "conversion particles distributed uniformly throughout said hemispheric conversion material region" (emphasis added).

The Final Office Action also alleges that the lens 29 (Reeh: Figure 3) of Reeh's apparatus is itself a hemispheric-shaped conversion material region. However, this lens 29 is for reducing the total reflection of the radiation within the adjacent luminescence conversion layer

4 (Reeh: paragraph 0091). Therefore, Applicants respectfully contend that because the lens 29 is for reducing the reflection within the adjacent luminescence conversion layer 4 (which has conversion particles), it follows that the lens 29 does not contain the conversion particles of the adjacent conversion layer 4. Additionally, Reeh discloses the lens 29 as being bonded to or integral together with the luminescent conversion layer 4 (Reeh: paragraphs 0091 and 0094). Therefore, Reeh does not disclose the lens 29 as being the same identical element as the adjacent conversion layer 4. Accordingly, Reeh does not disclose and does not teach the claim 1 limitations of "a hemispheric conversion material region formed separately from said light source and including conversion particles distributed uniformly throughout said hemispheric conversion material region" (emphasis added).

Accordingly, Reeh does not disclose and does not teach all the limitations of claim 1. Accordingly, claim 1 is allowable. Claims 2 and 5-17 depend from claim 1; as such, they are also allowable. Applicants respectfully request the withdrawal of the rejection of these claims.

Similarly, independent claim 32 had been presented with the following limitations: providing a separately formed hemispheric conversion material region which includes conversion particles distributed uniformly throughout said hemispheric conversion material region. Reeh does not disclose these features within its four corners as similarly discussed above. Applicants

respectfully submit that the arguments for patentability of claim 1 apply to claim 32 with equal force.

Accordingly, Reeh does not disclose and does not teach all the limitations of claim 32. Accordingly, claim 32 is allowable. Claims 33-39 either directly or indirectly depend from claim 32; as such, they are also allowable. Applicants respectfully request the withdrawal of the rejection of these claims.

Similarly, independent claim 44 had been presented with the following limitations: a substantially hemispherical lens element having a uniform distribution of wavelength conversion material dispersed throughout the substantially hemispherical lens element. Reeh does not disclose these features within its four corners as similarly discussed above. Applicants respectfully submit that the arguments for patentability of claim 1 apply to claim 44 with equal force.

Accordingly, Reeh does not disclose and does not teach all the limitations of claim 44. Accordingly, claim 44 is allowable. Claims 45-48 either directly or indirectly depend from claim 44; as such, they are also allowable. Applicants respectfully request the withdrawal of the rejection of these claims.

Claims 18-21, 23-24, and 27-31

Claims 18-21, 23-24, and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. 2001/0050371 to Odaki et al. ("Odaki"). Claim 18 is an independent claim. Claims 19-21, 23-24, and 27-31 depend

directly or indirectly on claim 18. The following arguments will focus on the independent claim.

Applicants respectfully disagree with this rejection. As stated and admitted in the Final Office Action, Odaki does not specifically show the prefabricated conversion material region having a lens shape. The Final Office Action relies on paragraph 0060 for the argument that the film 2' of Odaki can be in the shape of a lens.

Applicants respectfully disagree with this rejection, but to expedite allowance of the claims, Applicants amend independent claim 18 herein to recite: said phosphor loaded cap comprising a top perforation, said first contact arranged within the top perforation and is accessible through the top perforation. The claim 18 amendment is supported in the filed specification in, for example, paragraphs 0064, 0068, Figures 15, 16, and 18 and associated text. Odaki does not disclose these features within its four corners.

Odaki discloses an LED device with a fluorescent layer 2' that contains the phosphor 4 and is a film adhered to the light-emitting element 1 (Odaki: Figure 1B and paragraphs 0048-49). However, Odaki does not disclose or does not teach any fluorescent layer 2' with a perforation. Therefore, Odaki does not disclose or does not suggest a phosphor loaded cap comprising a top perforation, and does not further disclose or does not teach a contact that is arranged within the top perforation and that is accessible through the top perforation. Accordingly, Odaki does not disclose and does not teach the claim 18 limitations of "said phosphor loaded cap comprising a top perforation,

said first contact arranged within the top perforation and is accessible through the top perforation" (emphasis added).


Accordingly, Odaki does not disclose and does not teach all the limitations of claim 18. Accordingly, claim 18 is allowable. Claims 19-21, 23-24, and 27-31 depend from claim 18; as such, they are also allowable. Applicants respectfully request the withdrawal of the rejection of these claims.

New claims 49-67 are also being added. The new claims are supported in the filed specification in, for example, paragraphs 0050, 0051, 0054, 0058, 0059, 0060, 0061, 0062, 0063, 0068, Figures 11, 12, 13, 14, and 18 and associated text. Applicants respectfully request the allowance of these claims.

CONCLUSION

Claims 1, 2, 5-21, 23, 24, and 27-67 herein are allowable, and a timely Notice of Allowance is respectfully requested.

Respectfully submitted,


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